

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: FALLS POND	Lake Area (ha):	3.24
Town: ALBANY	Maximum depth (m):	4.6
County: Carroll	Mean depth (m):	2.6
River Basin: Saco	Volume (m ³):	84500
Latitude: 44°00'18" N	Relative depth:	2.3
Longitude: 71°16'51" W	Shore configuration:	1.27
Elevation (ft): 1115	Areal water load (m/yr):	4.45
Shore length (m): 810	Flushing rate (yr ⁻¹):	1.70
Watershed area (ha): 19.7	P retention coeff.:	0.68
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

9 January 1997

19 June 1996

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBYRON 45%	TETRAEDRON 45%
	#2		DINOBYRON 15%
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			1.47
DOM. ZOOPLANKTON (% TOTAL)	#1	CALANOID COPEPOD 81%	CALANOID COPEPOD 32%
	#2		HOLOPEDIDIUM 28%
	#3		VORTICELLA 15%
ROTIFERS/LITER		2	8
MICROCRUSTACEA/LITER		19	151
ZOOPLANKTON ABUNDANCE (#/L)		21	185
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			4.4 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		9.1	14.2
BACTERIA (E. coli, #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 2.2
Hypolimnion volume (m³): 4300
Anoxic volume (m³): None

CHEMICAL:

Lake: FALLS POND

Town: ALBANY

	9 January 1997		19 June 1996		
DEPTH (m)	2.0	4.0	1.0		3.0
pH (units)	5.9	5.9	6.4		6.4
A.N.C. (Alkalinity)	7.1	6.7	5.7		5.9
NITRATE NITROGEN	0.14	0.11	0.07		0.05
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS	0.009	0.008	0.009		0.011
CONDUCTIVITY (μ mhos/cm)	29.2	28.7	25.6		26.4
APPARENT COLOR (cpu)			20		15
MAGNESIUM			0.24		
CALCIUM			1.9		
SODIUM			1.7		
POTASSIUM			0.52		
CHLORIDE	< 2	< 2	< 2		< 2
SULFATE	3	3	3		3
TN : TP					
CALCITE SATURATION INDEX			3.9		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1996

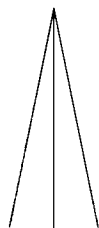
D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
0	0	1	0	1	Oligo.

COMMENTS:

1. Falls Pond is located in the White Mountain National Forest, and is adjacent to the Rocky Gorge Scenic Area along the Swift River. Access is via a footbridge across the Swift River off the Kancamagus Highway.
2. This is a clear, oligotrophic pond with cold water and abundant dissolved oxygen at the bottom (it is not known if a late summer sampling date would show the same results).
3. No development on the pond; it was surrounded by a spruce-pine-hemlock forest.
4. Motorboats are not allowed on the pond.
5. This pond was sampled jointly with the Fish and Game Department.

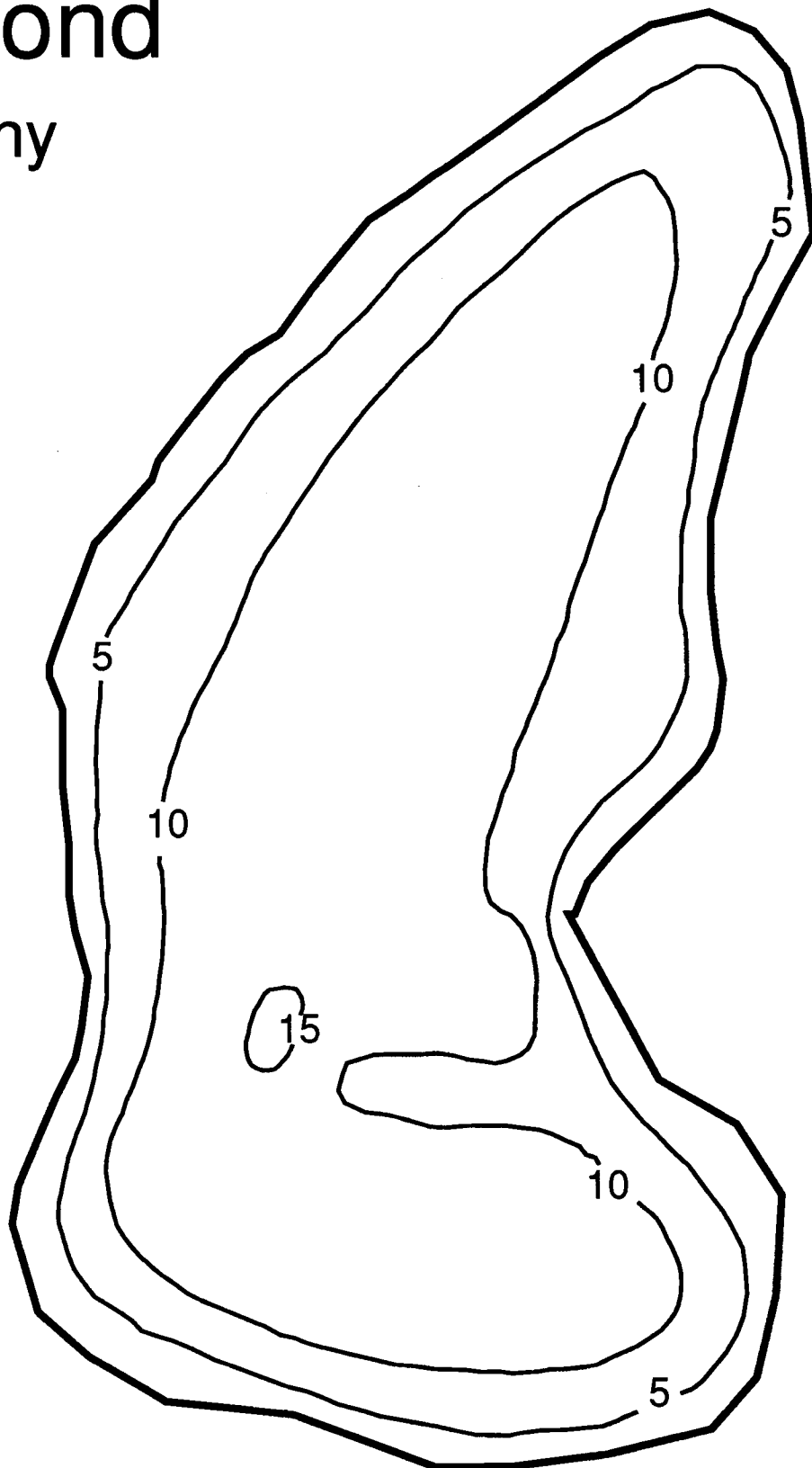
Falls Pond

Albany



N

5 foot depth contours



0

0.1

Km

III-96

[illegible]

TOWN: ALBANY
WEATHER: OVERCAST, FAIRLY CALM, 23 C

[illegible]

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SECCHI DISK (m):      4.4 VOB      COMMENTS:
BOTTOM DEPTH (m):     4.4
TIME: 1220

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*Dissolved oxygen values are in mg/L

AQUATIC PLANT SURVEY

LAKE: FALLS POND	TOWN: ALBANY	DATE: 06/19/96
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TOWN: ALBANY

DATE: 06/19/96

[illegible]

OVERALL ABUNDANCE: Scattered

GENERAL OBSERVATIONS:

1. The shoreline was covered with sweet gale and *Decodon* -- but they were not in the pond itself.